

Search for 09/135, 183  
9/9/99

=> d 13 bib, ab 1-10

L3 ANSWER 1 OF 6 CAPLUS COPYRIGHT 1999 ACS  
AN 1999:487433 CAPLUS  
DN 131:140458  
TI Electronic detection of nucleic acid amplification  
IN Kayyem, Jon Faiz  
PA Clinical Micro Sensors, Inc., USA  
SO PCT Int. Appl., 193 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9937819	A2	19990729	WO 1999-US1705	19990127
	W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			

PRAI US 1998-14304 19980127  
US 1998-PV73011 19980129  
US 1998-PV78102 19980316  
US 1998-PV84425 19980506  
US 1998-PV84509 19980506  
US 1998-135183 19980817

AB The invention relates to compns. and methods useful in the detection of nucleic acids using a variety of amplification techniques, including both signal amplification and target amplification. Detection proceeds through the use of an electron transfer moiety (ETM) that is assocd. with the nucleic acid, either directly or indirectly, to allow electronic detection of the ETM using an **electrode**. The ferrocene-contg. adenosine compds. were synthesized, incorporated into oligonucleotides, and used in detection of target DNA, e.g., HIV-derived DNA, and detection of 16S rRNA.

L3 ANSWER 2 OF 6 BIOSIS COPYRIGHT 1999 BIOSIS DUPLICATE 1  
AN 1999:228135 BIOSIS  
DN PREV199900228135  
TI Potentiometric detection in capillary electrophoresis with a **conducting oligomer electrode**.  
AU Poels, I.; Nagels, L. J. (1)  
CS (1) Department of Chemistry, University of Antwerpen (RUCA), Groenenborgerlaan 171, B-2020, Antwerpen Belgium  
SO Analytica Chimica Acta, (April 5, 1999) Vol. 385, No. 1-3, pp. 417-422. ISSN: 0003-2670.

DT Article  
LA English  
SL English  
AB A **conducting oligomer-based electrode** was used as a potentiometric detector for capillary electrophoresis. The **electrodes** were made by coating copper wires (250 mum diameter) with **conducting oligomer** blends. The oligomer was of the phenylene vinylene type. The potential changes occurring at the surface of the **conducting oligomer electrode** were measured in a wall-jet configuration. A mixture of 10 linear saturated fatty acids was separated using different buffers as running electrolytes. For hexanoic acid, the calibration curve showed linearity up to injected concentrations of  $7 \times 10^{-4}$  M and a detection limit of  $1 \times 10^{-6}$  M was obtained. The intra-**electrode** variation was 1.7%. The **electrode** showed a lifetime of at least three weeks. A theoretical

model was given to describe the behaviour of the potentiometric detector.

L3 ANSWER 3 OF 6 CAPLUS COPYRIGHT 1999 ACS  
AN 1999:8197 CAPLUS  
DN 130:49510  
TI Electronic methods for the detection of analytes  
IN O'Connor, Stephen D.; Kayyem, Jon F.; Meade, Thomas J.  
PA Clinical Micro Sensors, Inc., USA  
SO PCT Int. Appl., 66 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9857159	A1	19981217	WO 1998-US12430	19980612
	W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
	AU 9879678	A1	19981230	AU 1998-79678	19980612
PRAI	US 1997-49489		19970612		
	WO 1998-US12430		19980612		
AB	The present invention is directed to the detection of target analytes, such as biomols., using electronic techniques, particularly AC techniques. The invention also provides the app. for the detection of analyte in a test sample, comprising self-assembled monolayers and at least one metal ion ligand or chelate covalently attached to the <b>electrode</b> via a <b>conductive oligomer</b> .				

L3 ANSWER 4 OF 6 CAPLUS COPYRIGHT 1999 ACS  
AN 1998:324918 CAPLUS  
DN 129:25365  
TI **Electrodes** linked via **conductive oligomers** to nucleic acids for detection of nucleic acids  
IN Kayyem, Jon F.; O'Connor, Stephen D.; Gozin, Michael; Yu, Changjun  
PA Clinical Micro Sensors, USA; Kayyem, Jon F.; O'Connor, Stephen D.; Gozin, Michael; Yu, Changjun  
SO PCT Int. Appl., 141 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9820162	A2	19980514	WO 1997-US20014	19971105
	WO 9820162	A3	19981112		
	W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
	AU 9851967	A1	19980529	AU 1998-51967	19971105
PRAI	US 1996-743798		19961105		
	US 1997-40155		19970307		
	US 1997-873597		19970612		
	US 1997-873978		19970612		
	US 1997-899510		19970724		
	US 1997-911085		19970814		
	US 1997-911589		19970814		
	WO 1997-US20014		19971105		
AB	Nucleic acids are covalently coupled to <b>electrodes</b> via				

**conductive oligomers.** Site-selective modification of nucleic acids with electron transfer moieties and electrodes gives a new class of biomaterials which can be used as **electrodes** to detect a target sequence in a nucleic acid sample. Thus, a uridine-phenylacetylene **conductive oligomer** phosphoramidite I and 5'-O-DMT-5-ferrocenylacetylenyl-2'-deoxy uridine (UBF) phosphoramidite were synthesized and incorporated into a nucleic acid sequence: ACCATGGAC[UBF]CAGCU-conductive polymer (II). Mixed monolayers of II and insulator HS-(CH<sub>2</sub>)<sub>16</sub>OH were constructed on gold **electrodes** and analyzed using cyclic voltammetry and square wave voltammetry in the absence and presence of complementary target sequence.

L3 ANSWER 5 OF 6 BIOSIS COPYRIGHT 1999 BIOSIS DUPLICATE 2  
 AN 1998:442618 BIOSIS  
 DN PREV199800442618  
 TI Potentiometric detection of organic acids in liquid chromatography using **conducting oligomer electrodes**.  
 AU Poels, I.; Nagels, L. J. (1); Verreyt, G.; Geise, H. J.  
 CS (1) Univ. Antwerpen, Dep. Chem., Groenenborgerlaan 171, B-2020 Antwerpen Belgium  
 SO Analytica Chimica Acta, (Sept. 7, 1998) Vol. 370, No. 2-3, pp. 105-113. ISSN: 0003-2670.  
 DT Article  
 LA English  
 AB A **conducting oligomer electrode** was used for the potentiometric detection of organic acids in reversed phase liquid chromatography (LC). The conducting material consisted of a mixture of a phenylene vinylene trimer with a polycarbonate host polymer and iodine. A glassy carbon **electrode** was coated with this material by evaporation from a chloroform solution. A theoretical model was given to describe the observed potentiometric responses. The analysis conditions were optimized to obtain both efficient separations, and sensitive potentiometric responses. Detection limits in the nanogram level were attained when a 1 mM phosphoric acid solution was used as the eluent, which were comparable to the values obtained with low-wavelength UV detection. Calibration curves showed a logarithmic dependence on an injected amount for amounts higher than 5 nmol, and a linear dependence for injected amounts below this value. The response times of the **electrode** were smaller than 1 s at typical LC flow-rates. The reproducibility for consecutive injections was 5%.

L3 ANSWER 6 OF 6 CAPLUS COPYRIGHT 1999 ACS  
 AN 1995:896951 CAPLUS  
 DN 124:103790  
 TI Oriented and laminated fluoropolymer films, their preparation, organic electronic devices, and their manufacture  
 IN Wakita, Katsuya; Kawakami, Tetsuji; Sonoda, Nobuo  
 PA Matsushita Electric Ind Co Ltd, Japan  
 SO Jpn. Kokai Tokkyo Koho, 8 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07221367	A2	19950818	JP 1994-9074	19940131

PI The films consist of sol. amorphous fluoropolymer oriented films laminated along with elec. **conductive oligomer** films. The films are prep'd. by rubbing the fluoropolymer layers, and laminating the oligomer layers on them. Electronic device contg. the multilayered films sandwiched by a pair of **electrodes** are also claimed. The **conductive oligomer** layers are oriented. The amorphous polymers may be C<sub>2</sub>F<sub>4</sub>-perfluoro(2,2-dimethyl-1,3-dioxole) copolymer or radically cyclic-polymd. unsatd. unsym. perfluoroether. The oligomers may be oligothiophene. The films with high carrier mobility are used in FETs.

=> d his

(FILE 'HOME' ENTERED AT 14:03:10 ON 09 SEP 1999)

FILE 'BIOSIS, CAPLUS, MEDLINE, SCISEARCH, EMBASE' ENTERED AT 14:05:05 ON  
09 SEP 1999

FILE 'BIOSIS, CAPLUS, MEDLINE, SCISEARCH' ENTERED AT 14:07:57 ON 09 SEP  
1999

FILE 'BIOSIS, CAPLUS, MEDLINE, SCISEARCH' ENTERED AT 14:12:20 ON 09 SEP  
1999

L1 66 S CONDUCTI? OLIGOMER?  
L2 10 S L1 AND ELECTRODE?  
L3 6 DUP REM L2 (4 DUPLICATES REMOVED)